



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|----------------------------|-------------|----------------------|-----------------------|------------------|
| 10/091,134 | 03/04/2002 | Niklas Linkewitsch | 10559-709001 / P13318 | 5143 |
| 20985 | 7590 | 06/05/2006 | EXAMINER | |
| FISH & RICHARDSON, PC | | | DYKE, KERRI M | |
| P.O. BOX 1022 | | | ART UNIT | |
| MINNEAPOLIS, MN 55440-1022 | | | PAPER NUMBER | |
| | | | 2616 | |

DATE MAILED: 06/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/091,134

Applicant(s)

LINKEWITSCH, NIKLAS

Examiner

Kerri M. Dyke

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-14 is/are allowed.
- 6) ☒ Claim(s) 15-18 is/are rejected.
- 7) ☒ Claim(s) 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Applicant's arguments with respect to claims 15-19 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 15 and 16 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Page 17 lines 8-11 of the specification indicate computer readable medium includes signals. Signals do not fall into any of the four statutory categories of invention. They do not set forth steps or a procedure and therefore cannot be a process. A signal is not a machine because it has no physical structure and cannot itself perform a useful, concrete, and tangible result. A signal is made up of energy, not matter, and therefore is not a composition of matter. Lastly, a manufacture requires physical substance, which a signal does not have.

Consult pages 55-57 of the guidelines available at:

http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101_20051026.pdf for more information.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 2616

4. Claims 17 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Taniguchi et al. (US 5,442,405).

5. In regards to claim 17, Taniguchi discloses a device for use in aligning a frame, the device comprising: parallel compare circuits configured to receive data and a predetermined sequence, and to produce a comparison result; and a state machine configured to receive the comparison result from the parallel compare circuits and to produce a frame alignment determination. Figures 1 and 8 are different embodiments of a device for use in aligning a frame. The parallel compare circuits 13, 14, and 831-833 compare the received data to a predetermined sequence and produce a result. The state machine uses those results, in conjunction with the bit error results, to determine alignment. Column 3 line 58 - col. 4 line 56 provides a brief description of each embodiment.

6. In regards to claim 18, Taniguchi discloses the device of claim 17 wherein: each of the parallel compare circuits is configured to produce a separate comparison result, and the state machine is configured to receive each of the separate comparison results. Figures 1 and 8 use multiple arrows connecting the parallel comparators to the state machine to signify that each circuit produces and sends a separate result.

Allowable Subject Matter

7. Claims 1-14 are allowed.

8. Claim 19 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter:

- a. Claims 1 and 12 include similar limitations. Kaul teaches comparing received data to a predetermined sequence and aligning the frame if the total number of errors is less than a threshold in column 8 lines 27-31. Additionally, Schneider, in figure 8, discloses a method to maintain frame synchronization. However, neither Schneider nor Kaul mention aligning the frame so that it begins at bit zero of the bus cycle. Both Fuhrmann (in col. 90 ln. 10-45) and Rakib (in col. 14 ln 51 – col. 15 ln. 22) describe the importance of synchronizing frames. Rakib states that the frames should be aligned to a “gap” or guardband but does not teach when in the bus cycle this “gap” occurs. It is commonly known that guardbands may occur at the beginning, end, or both of a cycle. Figure 4B shows the gap occurs at the end of the frame and the gap is not necessarily related to the bus cycle. Therefore, the prior art does not teach or suggest aligning a frame to bit zero of a bus cycle.
- b. Claim 19 includes an additional compare circuit, not in parallel with the other compare circuits. The additional compare circuit produces and delivers to the state machine another comparison. Taniguchi teaches only the parallel comparison circuits. Choi discloses a method for multiple comparisons in figures 3A-C. Choi does not have any parallel compare circuits. In addition, further comparison is not carried out if a previous comparison found an adequate synchronization. The method of Choi may perform only one comparison if the first iteration of the method results in an adequate signal. Additionally the goal of Choi is to perform a fast synchronization and to perform a minimum number of comparisons. Claim 19, however, requires at least three comparisons, two in parallel and one not in parallel.

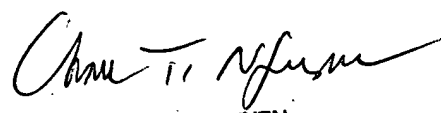
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kerri M. Dyke whose telephone number is (571) 272-0542. The examiner can normally be reached on Monday through Thursday, 7:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

kmd


CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600